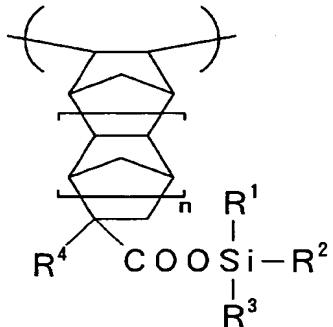


## CLAIMS

[1] A (co)polymer comprising a structural unit represented by the following general formula (1):  
 [Chemical 1]

**General formula (1)**

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wherein n is 0 or 1, and R¹, R², R³ and R⁴ mean, independently of one another, a hydrogen atom, halogen atom or monovalent organic group.

[2] A copolymer comprising the structural unit  
 10 represented by the general formula (1) according to claim 1,  
 a structural unit derived from ethylene and a structural  
 unit derived from an  $\alpha$ -olefin having 3 to 12 carbon atoms,  
 and a structural unit derived from a nonconjugated polyene  
 optionally used.

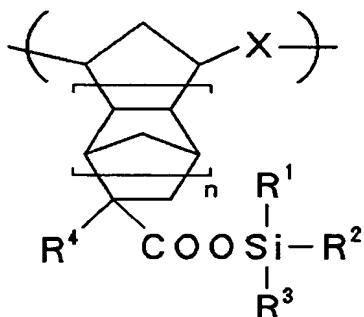
15 [3] The copolymer according to claim 2, wherein the  
 content of the structural unit represented by the general  
 formula (1) is 0.01 to 30 mol%, the content of the  
 structural unit derived from ethylene is 40 to 90 mol%, the  
 content of the structural unit derived from the  $\alpha$ -olefin  
 20 having 3 to 12 carbon atoms is 5 to 60 mol%, and the

content of the structural unit derived from the nonconjugated polyene is 0 to 12 mol%.

[4] A (co)polymer comprising a structural unit represented by the following general formula (2):

## 5 [Chemical 2]

### General formula (2)



wherein n is 0 or 1, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> mean, independently of one another, a hydrogen atom, halogen atom or monovalent organic group, and X denotes an ethylene or vinylene group.

10 [5] A copolymer comprising the structural unit  
represented by the general formula (2) according to claim 4  
and a structural unit derived from any other cycloolefin  
compound.

[6] The (co)polymer according to any one of claims 1  
15 to 5, wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> in the general formula (1) or  
the general formula (2) are, independently of one another,  
a hydrogen atom or a hydrocarbon group having 1 to 20  
carbon atoms.

[7] The (co)polymer according to any one of claims 1  
20 to 6, wherein R<sup>4</sup> in the general formula (1) or the general

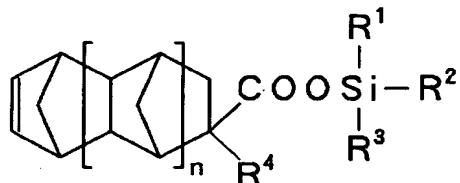
formula (2) is a methyl group.

[8] The (co)polymer according to any one of claims 1 to 7, wherein n in the general formula (1) or the general formula (2) is 1.

5 [9] A process for producing a (co)polymer, which comprises the step of addition-polymerizing a monomer comprising at least a compound represented by the following general formula (3):

[Chemical 3]

**General formula (3)**



10

wherein n is 0 or 1, and R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> mean, independently of one another, a hydrogen atom, halogen atom or monovalent organic group.

15 [10] A process for producing a copolymer, which comprises the step of addition-polymerizing the compound represented by the general formula (3) according to claim 9, ethylene and an  $\alpha$ -olefin having 3 to 12 carbon atoms, and a nonconjugated polyene optionally used.

20 [11] A process for producing a (co)polymer, which comprises the step of ring-opening-polymerizing a monomer comprising at least the compound represented by the general formula (3) according to claim 9.

[12] A process for producing a copolymer, which comprises the step of ring-opening-polymerizing a monomer comprising the compound represented by the general formula (3) according to claim 9 and another cycloolefin compound 5 copolymerizable with this compound.

[13] A process for producing a carboxyl group-containing (co)polymer, which comprises the step of subjecting an ester group of the (co)polymer according to any one of claims 1 to 8 to a hydrolyzing treatment.